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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,260	12/11/2003	Colin Whitby-Stevens	APPLE.049A	9784
65201 7590 08/13/2009 GAZDZINSKI & ASSOCIATES, P.C. 11440 WEST BERNARDO COURT SUITE 375 SAN DIEGO, CA 92127			EXAMINER ABRAHAM, ESAW T	
			ART UNIT 2112	PAPER NUMBER
			MAIL DATE 08/13/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/735,260

**Applicant(s)**

WHITBY-STREVS ET AL.

**Examiner**

ESAW T. ABRAHAM

**Art Unit**

2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Notice of appeal filed on 05/14/09.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 57-73 is/are pending in the application.
- 4a) Of the above claim(s) 101-119 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 57-73 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***DETAILED ACTION***

- The reply filed March 09, 2009, has been received and entered.
- Applicant's argument do not appropriately address the rejection of claims 68-73 under 35 U.S.C. § 101. Additional clarification is provided in the discussion of the rejection maintained below.
- Art rejections are withdrawn.

**Status of claims**

1. Claims **57-73** remain pending.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims **57-73** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 57 and 68 recited the limitation "A most significant bit and a least significant bit of said symbol indicate a type of said symbol". Nowhere in the specification does the applicant teach, "**A most significant bit and a least significant bit** of said symbol indicate at least a type of said symbol" nor it clear what the Applicant intends by the language. Note: Applicant's

paragraph [0027] of the disclosure only teaches "protecting symbols by characterizing symbols as one of two types and generating a symbol characterization bit and placing the symbol characterization bit at both ends of the symbol". The examiner would like to point out that the most significant bit are known to be characterized as sign bits. For example, a two's complement of a digital number of variable word length, with the least significant bit followed by more significant bits commonly have a **sign bit as the most significant bit** for denoting a positive or negative symbol. Therefore, the claims fail to comply with having an adequate written description for the following reasons.

The written description persistently uses non-descriptive, non-specific language. The law requires that the written description be clear and precise as to how the Applicant performs such activities as those claimed. The specification uses terms which are not further defined, yet, these terms are essential subject matter as they are included in the claims. If the broadest, common sense interpretation is not correct, the specification does not properly define the terms which the claims rely upon for patentability. The novelty of the present invention must be disclosed in such detail as to allow one of ordinary skill in the art to make and use the invention without undue experimentation. Such details for the actual inventive concepts have not been given in the present disclosure. Legal support for these reasons for a determination that the written disclosure is not adequate can be found in the recent US Court of Appeals for the Federal Circuit, *Automotive Technologies International, Inc., v. BMS of North America, Inc ...* (2006-1013,-1037).

Dependent claim(s) depend(s) from the base claim(s) and inherently include(s) limitations therein and therefore is (are) rejected as well.

*Claim Rejections - 35 USC § 112, 2<sup>nd</sup>*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. In line 6 of claim 57, the claim recites the limitation "said encoding increases the reliability of said transmitting data" which does not particularly point out how the encoding increases the reliability of the transmitting data.

*Claim Rejections - 35 USC § 101*

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 68-73 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data. Both types of "descriptive material" are nonstatutory when claimed as

descriptive material per se. In re Warmerdam, 33 F.3d 1354, 1361, 31 USPQ2d 1754, 1760 (claim to a data structure per se held nonstatutory).

Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., In re Warmerdam, 33 F.3d 1354, 1361, 31 USPQ2d 1754, 1760 (claim to a data structure per se held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory.

Similarly, computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035.

Claim 68 recites apparatus comprising a series of elements (modules) reasonably interpreted as software. Accordingly, claims 68 appear to merely set forth functional descriptive material *per se*, which is nonstatutory.

Dependent claim(s) depend(s) from the base claim(s) and inherently include(s) limitations therein and therefore is (are) rejected as well.

### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Esaw T. Abraham whose telephone number is (571) 272-3812. The examiner can normally be reached on M-F 8am-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571) 272-3644. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Esaw T Abraham/

Primary Examiner, Art Unit 2112

08/08/09